

MasterProtect® 1817

A non-toxic, flexible high build, epoxy polysulfide coating for wholesome water

DESCRIPTION

MasterProtect 1817 is a protective flexible high build epoxy polysulfide resin coating specifically developed for applications in areas where contact with wholesome water storage tanks or foodstuffs is envisaged. **MasterProtect 1817** protects concrete and steel from contact with aggressive chemicals, oils, mild acids, solvents and has a broad spectrum of chemical resistance. Supplied as a two-pack system, comprising pigmented base and a hardener, it requires only on site mixing producing an easily applied decorative and chemically resistant finish. **MasterProtect 1817** coatings will not support the growth of bacteria. **MasterProtect 1817** has been tested according to BS6920 (High Temperature Usage) and is approved for use in cold & hot water up to 50°C.

PRIMARY USES

For the internal protection of concrete or metal tanks containing drinking water, cold warehouse, food freezers, certain chemicals, oils and fuel. As an impervious, resilient and chemically resistant floor or wall coating and as a gas and vapor barrier. As a protective and decorative coating in laboratories, abattoirs, etc. Other usage areas include oil refineries, paper mills, power stations, marine applications, garages, hospitals, hangars and most liquid containment areas. Contact your Master Builders Solutions representative for further advice.

APPEARANCE & FINISH

High gloss, heavy bodied, ultra dense surface. Hygienic and easily cleaned. Standard color is pale red. Other colors are also available based on minimum volume.

ADVANTAGES

- Non-toxic
- Safe for use with wholesome water
- Waterproof and protective
- Durable
- Crack bridging ability
- Limited UV resistant
- Superior chemical resistance
- Easily applied by brush or roller
- Flexible

PACKAGING

MasterProtect 1817 is supplied in 4, 10 & 20L units

TYPICAL PROPERTIES

Volume Solids	100%
Mixed Density at 25°C	1.20 kg/l
Pot Life at 25°C	50 min
Tack free time at 25°C	7h
Full cure at 25°C	14 days
Inter-coat time at 25°C	9h
Tensile strength at 7 days	> 5.5 MPa
Elongation at 7 days	>60 %
Hardness (Shore D)	>50
U/V resistant	Limited Resistant
Adhesion to steel	Excellent
Adhesion to concrete	Concrete failure
Chloride Permeability	Nil
Water Permeability at 5 bars	Nil

APPLICATION PROCEDURE

SURFACE PREPARATION

All surfaces, concrete or metal shall be cleaned using high pressure water jetting, grit blasting or other methods approved by the engineer to provide adequate mechanical key for excellent bonding as further indicated in the method statement. It is most important to ensure that thorough surface preparation is undertaken prior to application of the **MasterProtect 1817 coating**.

CONCRETE

Ensure concrete is free from excessive laitance, grease, oil, curing compound, etc. Ensure concrete is sound, cutting back where necessary and making good using suitable **MasterEmaco** or **MasterBrace** repair systems. Ensure all blow holes and surface imperfections are made good prior to application of the **MasterProtect 1817** coating. If concrete is porous, apply a primer coat using **MasterEmaco P 102** allow to dry prior to applying **MasterProtect 1817**.

Ensure concrete is at least 28 days old. Contamination by oil, grease, fats etc. must be removed before other forms of preparation begin. Remove laitance to expose blow holes, by light grit blasting.

STEEL

All previous surface treatments should be removed taking the surface back to base metal. The base metal should be abraded and preferably shot blasted with grit, steel shot or proprietary abrasive. Where shot blasting is impractical

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pre-treatment may be carried out with pneumatic de-scaling guns, tap hammers, rotary wire brushes or by flame scaling. Cleaning with solvent or a strong detergent is advisable to ensure surface is free from grease etc. Do not allow surface to re-oxidise before application of **MasterProtect 1817**.

MIXING

MasterProtect 1817 is supplied in two pre-weighed components, base and reactor. No additions or omissions are required. Add reactor contents to the base component and mix thoroughly for using a slow speed drill fitted with a suitable mixing paddle until a uniform streak free color is achieved.

APPLICATION

MasterProtect 1817 coating can be applied using good quality rollers or short haired brushes or by airless spray. It is recommended that **MasterProtect 1817** coating be applied in two coats of contrasting colors to ensure complete coverage.

If the application is delayed more than 16 hours at 40°C or 36 hours at 20°C after the previous coat (the higher the ambient temperature, the shorter the maximum period), then the previous coat must be thoroughly abraded to give an adequate mechanical key and solvent wiped. For wholesome water application wait for 14 days application prior to use.

APPLICATION TEMPERATURE

The quality of the final coating is dependent on the substrate and the material temperatures. We recommend a substrate temperature of min. +14°C and max. +30°C. The optimal material temperature is +20°C to +25°C. For Wholesome water application material needs to be applied in temperature controlled environment (use cooler in case of high temperature and hot air blower for low temperature), maintain min 14°C for 21 days and 25 °C for 14 days to ensure full cure property of wholesome water coating.

AIRLESS SPRAY

For application by airless spray, use a 45:1 or higher ratio pump, minimum 9mm dia. hoses and HD tip 19-23 thou.

OVERCOATING

Where areas need to be overcoated due to damage etc. it is important that the areas to be treated are well abraded using a stiff rotary wire brush or coarse sand paper to give an adequate key. Completely strip off any unsound coating and proceed with overcoating as for new work.

CHEMICAL RESISTANCE*

MasterProtect 1817 is resistant to the various typically encountered chemicals:

- Ammonium hydroxide
- Dilute Hydrochloric Acid
- Dilute Phosphoric Acid
- Sodium Chloride Saturated
- Vegetable Oil
- Sodium hydroxide
- Deionized water
- De-icing salt

EQUIPMENT CARE

All equipment must be cleaned immediately after use with MasterTop THN 2 Similar cleaning procedures should be adopted for break periods exceeding 15 minutes duration.

SPECIFICATION CLAUSE

Where indicated, apply **MasterProtect 1817** protective epoxy polysulfide coating as manufactured by Master Builders Solutions, or similar approved to the following specification:

Composition:	Two component, pigmented non-toxic, epoxy polysulfide resin based compound.
Coverage:	0.25L/m ² /coat, two coats are recommended.
Dry film thickness:	500 microns

STORAGE

Store under cover out of direct sunlight and protect from extremes of temperature. In tropical climates the product must be stored in an air conditioned environment. Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging. For specific storage advice, consult Master Builders Solutions's Technical Services Department.

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SAFETY PRECAUTIONS

As with all chemical products, care should be taken during use and storage to avoid contact with eyes, mouth, skin and foodstuffs. Treat splashes to eyes and skin immediately. If accidentally ingested, seek immediate medical attention. Keep away from children & animals. Reseal containers after use. For further information, refer to material safety data sheet.

NOTE

Field service, where provided, does not constitute supervisory responsibility. For additional information contact your local Master Builders Solutions representative.

Master Builders Solutions reserves the right to have the true cause of any difficulty determined by accepted test methods.

QUALITY AND CARE

All Master Builders Solutions Products are manufactured under a management system independently certified to conform to the requirements of the quality, environmental and occupational health and safety standards of ISO 9001 and Master Builders Solutions ESHQ recommendations.

* Properties listed are based on laboratory controlled tests.

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CONTACT

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Disclaimer:

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